**Assignment -3**

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**1.Write a python code for blinking LED in Raspberry pi.**

import RPi.GPIO as GPIO

from time import sleep

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup (8, GPIO.OUT, initial = GPIO.LOW)

while True:

GPIO.output(8, GPIO.HIGH)

sleep(2)

GPIO.output(8, GPIO.LOW)

     sleep(2)

from gpiozero import LED

from time import sleep

led=LED(16)

while True:

led.on()

sleep(1)

led.off()

sleep(1)

**2**.**Write a python code for Traffic lights in Raspberry pi.**

import RPI.GPIO as gpio

from time import sleep

RED\_PIN =25

YELLOW\_PIN =8

GREEN\_PIN =7

gpio.setwarnings(FALSE)

gpio.setmode(gpio.BOARD)

gpio.setup(BLINK\_PIN, gpio.OUT, initial=gpio.LOW)

def red\_light(): # for red light

gpio.output(RED\_PIN, gpio.HIGH)

gpio.output(YELLOW\_PIN, gpio.LOW)

gpio.output(GREEN\_PIN, gpio.LOW)

def yellow\_light(): # for yellow light

gpio.output(RED\_PIN, gpio.LOW)

gpio.output(YELLOW\_PIN, gpio.HIGH)

gpio.output(GREEN\_PIN, gpio.LOW)

def green\_light(): # for green light

gpio.output(RED\_PIN, gpio.LOW)

gpio.output(YELLOW\_PIN, gpio.LOW)

gpio.output(GREEN\_PIN, gpio.HIGH)

while True:

red\_light() # red light for 15 seconds

sleep(15)

yellow\_light() # yellow light for 10 seconds

sleep(10)

green\_light()

sleep(20) # allow traffic for 20 seconds